

### Fourth Indexing Course

The fourth training course in 'Indexing' was organised by DESIDOC at Metcalfe House, Delhi from 24 Feb to 6 Mar 1982. The course was intended for information personnel of DRDO Labs/Estts located in the north zone. The curriculum covered various aspects of indexing techniques and systems including computer processing. Besides the lectures and practical assignments, audiovisual demonstration on NTIS services was also screened. Visits to DRDO Computer Centre to familiarise the participants with the working of the computer, and INSDOC/National Science Library were also arranged.

The faculty members drawn mainly from DESIDOC were supplemented by experts from INSDOC and Dept of Library Science, University of Delhi.

Delivering the valedictory address, Prof M. Krishnamurthi, CCR&D(K), advised the trainees to put into practice the knowledge gained by them in the course for improving the efficiency in Lib/Inf Services. He hoped that the course would help in achieving the uniformity in the indexing practices in DRDO Libraries/TICs and would lead to better input preparation for computerisation of the information. Earlier addressing the participants, Shri S.S. Murthy,

Director, DESIDOC, said that the main objectives of this training course were to acquaint the participants with the recent developments in the field and to promote uniformity in the indexing in the TICs of DRDO.

Shri V.K. Rangra, Scientist 'D', was the Course Director. The next course will be conducted in Delhi.

### Computerisation of Information.

Since the last reporting on the subject (DESIDOC Bulletin, Vol 1, No 1), substantial progress has been made in the information system design and the software development. For processing bibliographic data for each document one data input sheet which has the following data elements is prepared :

1. Document number
2. Report/patent/class number
3. Subject category (COSATI)
4. Language of the document
5. Physical format of the document
6. Availability of the document (Acc. No. and Name of the DRDO Estt)
7. Personal author (two only)
8. Corporate author/Issuing agency
9. Document type
10. Imprint/Citation
11. Title

12. Descriptors (upto nine)
13. Abstract

Total = Upto 1280 characters. Software package written in structured COBOL, which operates on the above data, was compiled, debugged, executed at UNIVAC—1100 Computer available at BHEL, Delhi. The same has been implemented on PRIME-750 Computer. From a single input, the system provides the following outputs :

### OUTPUTS

1. *Subject Bibliography of Input Records*  
This is sorted on three keys, i.e. (i) COSATI numeric subject code, (ii) Alphabetical equivalent of numeric code, (iii) Title of the document (first 40 characters) printed in double columns.
2. *Personal Author Index*  
Author index is printed in double format. An entry contains the name of the author and the corresponding document number.
3. *Corporate Author Index*  
Corporate author index is printed in two columns. Entry contains name of the corporate author and the document number.
4. *Descriptor with Truncated Title Index (DWTT)*  
Descriptors are sorted alphabetically. For each



and every descriptor, all the document titles for which it was used during the input phase together with their document numbers, are indent printed in double column format.

5. *Document Type Index*

This facilitates searching of information depending on documents category, such as report, book, patent, etc. Entry contains three data elements : (i) Report/Patent/Call number, etc., (ii) Corresponding document number, and (iii) The document code. (In fact, it is a composite document index).

6. *Selective Dissemination of Information (SDI)*

The system matches the user interest profiles (descriptors connected by Boolean operators) and the document profiles. It prints out for each interest profile, the relevant documents in two parts : (i) User copy, (ii) Feedback copy. The feedback copy is to be returned to the system for refining the interest profiles, if necessary. Data elements contain :

- (i) Profile number of the user.
- (ii) Name and address of the user.
- (iii) Search parameters and search expression.
- (iv) Document number, title, availability code, language and physical format.
- (v) In feedback copy each document entry has a comment line "IS THIS DOCUMENT RELEVANT TO YOU? YES/NO/CAN'T SAY."
- (vi) In case of zero number of hits, a message is printed "NO DOCUMENTS PLEASE."

The COBOL program package has eleven modules (a total of 2000+ statements). Function of each module is listed below :

<i>Sl. No.</i>	<i>Module Name</i>	<i>Function</i>
1.	SORT-ROUTINE	Sorts input data in the ascending sequence of document number.
2.	CARD-TAPE-TRANSFER	Reads sorted card format data and transfers it on to tape/disc in fixed format.
3.	SORT-BIBLIOGRAPHY	Sort records on COSATI subject fields; allots document number and creates Master File for further processing.
4.	ASDI	i) Adds Interest Profiles to an existing interest profile file. ii) Matches user interest profiles with document profiles in the master file for comprehensive literature search.
5.	SDI	Matches the existing profiles with document profiles.
6.	BIBL	Prints bibliography and indexes.
7.	NEW MAST CREATE	Creates/Adds Master New File as an indexed sequential file.
8.	CREATE	Creates the descriptor database (Inverted file) as indexed sequential file.
9.	FULL	Prints bibliography, indexes and SDI (Combination of BIBL+SDI).
10.	DES	Outputs descriptor with truncated title index.
11.	QUERY	Performs query search online/off-line on database.

(vii) Master file for retrospective searches and descriptor database on disc for online query search.

**ONLINE QUERY SEARCH**

The programme accepts the user's keyed (himself) queries ranging from a single descriptor to nine descriptors connected by Boolean operators "AND" & "OR" but not greater than 45 descriptors. A maximum of 99 queries are run during a single run. The search results are printed on both VDU and printer as desired.

**DATA PROCESSING**

Technical report data received from GTRE Bangalore was processed and the output sent to them. DESIDOC Translation Division data (translations held by DESIDOC) has also been processed.

**TRAINING**

In house training to DESIDOC staff was imparted for the input preparation for the system.

**Updating of Translations Index**

Cooperation of Defence R&D Laboratories/Establishments is solicited to update the index of translations maintained in the Translation Bank at DESIDOC. The present holding of translations runs into over 2000. The information on each translated document is arranged according to source, author and subject.

The Defence R&D Labs/Estts have been requested to forward the bibliographic details of translations available with them, which were got done through other agencies to-date, in the format shown below :

Author(s) :

Title of translation and name of



source :  
 Language :  
 Reference :  
 Translation No :  
 Translated by :

This information will help in avoiding duplication in translation effort and quick location of existing translations in DRDO.

### SDI Bulletins

Eight bulletins were brought out on subjects of Defence interest:—

1. *Armoured Fighting Vehicles* : This bulletin highlights various MBTs under development in various countries and also reports the improvements made in APC and M-2 in USA.

2. *Energy Resources* : The main article 'Alternative aircraft fuels' highlights the urgency of studies on development of alternative fuels for aircraft and also discusses the viability of hydrogen, alcohol, etc, as fuels.

3. *Corrosion Prevention* : This contains two articles, viz, (i) The control of hot corrosion in marine gas turbines, and (ii) A systematic approach to corrosion prevention.

4. *Information Science* : This bulletin contains articles on (i) The role of special libraries in the emerging national network, and (ii) Small libraries : keeping the professional position professional.

The tactical fighters development, ground attack light weight survivable AMX, VSTOL, and Sea Harriers are some of the subjects of the remaining bulletins.

### Current Awareness Service

Information on scientific developments in China (42 items) and on science and technology in Pakistan (15 items) were disseminated through the two publications, viz., 'Spot News on China', and 'Science and Technology in Pakistan'.

Information on 'DRDO', 'Defence' and 'Science and

Technology', reported in daily newspapers, was scanned and 1445 selected items were brought to the notice of top management in DRDO.

### Information Search

Information on the following subjects/topics was collected from the literature available in the Defence Science Library and supplied to the indentors :

1. Blue Green Laser
2. Development of Aerial Mast
3. War Gaming
4. Composite Solid Propellant
5. Vehicle Technology
6. Ship Propulsion and Small Craft
7. Tectonics System

### Seminar Lectures

1. 'Application of quantitative methods to information sciences'—Shri K.C. Garg (9 Feb 1982).
2. 'NATIS with reference to NISSAT programme'—Prof P.B. Mangla, University of Delhi (3 Mar 1982).
3. 'Computer system introduction'—Lt Col R.K. Sharma, OIC, DRDO Computer Centre (4 Mar 1982).

4. 'Library and Information science education in India'—Prof K.A. Issac, Professor of Library Science, University of Kerala (31 Mar 1982).

### Library Activities

89 books, 242 reports literature were acquired and accessioned by the Library during Feb & March 1982.

677 publications consisting of 250 books, 386 periodicals and 65 reports literature were loaned during this period within and outside the Defence R&D Organisation. Inter-library loan facility was availed by the SA to CAS, SA to CNS, DSC, DLRL, DTRL and DEAL.

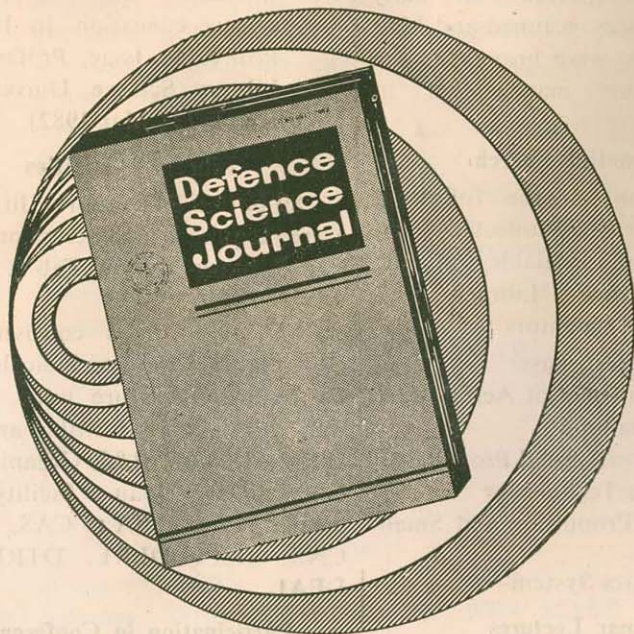
### Participation in Conference

Shri S.N. Mehta, Scientist 'D', attended DRTC Annual Seminar (19) 1982 held at Bangalore from 1 to 5 March, 1982 and presented the paper 'Resource Sharing Cooperative Acquisition of Documents by Research Libraries in India.' He also chaired the technical sessions 7 & 8 on 'Collection Development and Document Circulation'.

### Forthcoming Conference

S.No.	Conference	Date	Details available from
1.	7th International Conference on Crystal Growth in Stuttgart, German Fed Rep.	12-16 Sept 1982	Secretary, ICCG-7 Krestal-labor Physikalisches Institute der Universitat Pfa Ffenwaldning 57 7000
2.	41st Conference and Congress of Federation for Documentation : The challenge of information technology in Hong Kong	12-16 Sept 1982	Polytechnic Librarian Hong Kong, Polytechnic Library, Hung Hom Kowloon, Hong Kong.
3.	2nd International Conference on Databases (ICOD-2)	20-23 Sept 1982	British Computer Society, 13 Mansfield Street, London, W1M 0BP UK.
4.	7th International Biotechnology symposium in New Delhi	Nov-Dec 1982	Biochemical Engineering Research Centre, IIT, New Delhi-110029.





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